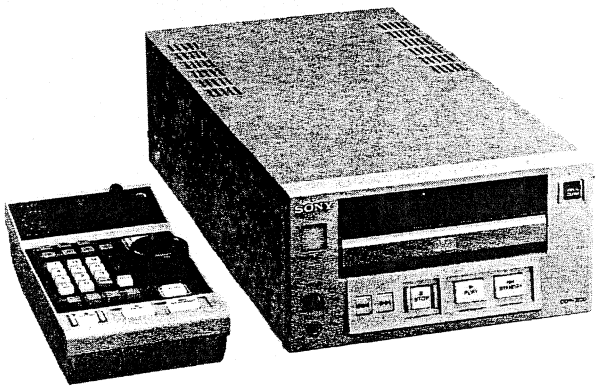
SONY

COMPACT DISC PLAYER UNIT

CDP-3100

COMPACT DISC PLAYER CONTROL UNIT

CDS-3100



COMPACT disc DIGITAL AUDIO

OPERATION MANUAL English

1st Edition

Serial No. 20001 and Higher (UC)

Serial No. 50001 and Higher (AE)

Serial No. 60001 and Higher (UK)

For the customers in the U.S.A.

WARNING
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any change or modifications not expressly approved in this manual could void your authority to operate this equipment.

The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC rules.

CAUTION
As the laser beam used in this compact disc player is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

For the customers in Canada

This apparatus complies with the Class A limits for radio noise emissions set out in Radio Interference Regulations.

Pour les utilisateurs au Canada

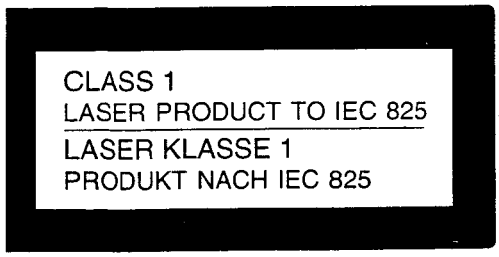
Cet appareil est conforme aux normes Class A, pour bruits radioélectriques, spécifiés dans le Règlement sur le brouillage radioélectrique.

WARNING (For the customers in the United Kingdom)
THIS APPARATUS MUST BE EARTHED

IMPORTANT
The wires in this mains lead are coloured in accordance wit the following code:

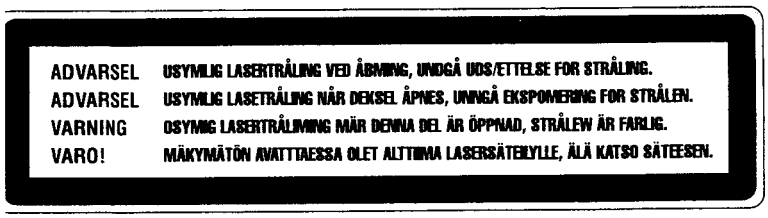
Green-and-yellow:	Earth
Blue:	Neutral
Brown:	Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by th letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow. The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.



'his compact disc player is classified as a CLASS 1 LASER
'RODUCT.
'he CLASS 1 LASER PRODUCT label is located on the
ide panel.

UOKAN 1 LASERLAITE
:LASS 1 LASER APPARAT


ADVARSEL USYNLIG LASERTRÅLING VED ÅBNING, UNDGÅ UDS/ETTELSE FOR STRÅLING.
ADVARSEL USYNLIG LASETRÅLING NÅR DEKSEL ÅPNES, UNNGÅ EKSPONERING FOR STRÅLEN.
VARNING OSYNIG LASERTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD, STRÅLEW ÄR FARLIG.
VARO! MÄKYMÄTÖN AVATTIAESSA OLET ALTTIIMA LASERSÄTEILYLLE, ÄLÄ KATSO SÄTEESEN.

'his label is located on the side of the unit.

Table of Contents

About This Manual 2

Chapter 1 Overview

1-1 Introducing the CDP-3100/CDS-3100 1-2
1-2 Features 1-3
1-2-1 Features of the CDP-3100 Compact Disc Player Unit 1-3
1-2-2 Features of the CDS-3100 Compact Disc Player Control Unit 1-4
1-2-3 Features of the Optional DABK-3101 Memory Board 1-4

Chapter 2 Function of Parts and Controls

2-1 Front Panel 2-2
2-2 Rear Panel 2-4
2-3 Control Unit 2-6

Chapter 3 Preparations

3-1 Precautions 3-2
3-1-1 Installation Precautions 3-2
3-1-2 Handling Precautions 3-2
3-2 Connections 3-3
3-2-1 Precautions 3-3
3-2-2 Basic Connection Examples 3-3
3-3 Maintenance 3-4
3-3-1 Cleaning the Player 3-4
3-3-2 Cleaning Discs 3-4

Chapter 4 Operations

4-1 Overview of Player Operations 4-2
4-1-1 Player Modes 4-2
4-1-2 DIP Switches 4-4
4-2 Searching for a Cue Point 4-6
4-2-1 Specifying a Cue Point Numerically 4-6
4-2-2 Searching for a Cue Point With the JOG Dial 4-8
4-2-3 Memory Jog and Memory Start Functions (With the Optional DABK-3101 Memory Board Installed) 4-9
4-2-4 Checking the Contents of a Track 4-11
4-2-5 Storing a Cue Point 4-12
4-3 Playback Procedures 4-13
4-3-1 Normal Playback 4-13
4-3-2 Variable-Speed Playback 4-15
4-4 Setting the Channel Origin Code 4-17

Appendix

Specifications A-2

Index I-1

About This Manual

This preface explains the contents and use of this manual, which serves as a guide for using the Sony CDP-3100 compact disc player unit and CDS-3100 compact disc player control unit. It is recommended that you read this preface first for an overview of the manual's contents, then refer to the specific sections of the manual as required during actual use of your CD player/control unit.

Purpose of This Manual

This manual provides information necessary for the operation of the CDP-3100/CDS-3100 system, including the names of major parts and their functions, set up procedures, and general operations.
This manual is supplied with the CDP-3100.

Readers of This Manual

The CDP-3100/CDS-3100 is designed as a CD player/control unit for professional use and is primarily for AM/FM station and post-production operators. Therefore, this manual assumes that the reader is experienced with and knowledgeable about CD players and other broadcast equipment.
Such persons should be able to understand the various features and use the various functions by reading Chapter 1, "Overview" and Chapter 2, "Function of Parts and Controls", with reference to other chapters as needed.
Those with little or no experience with CD players should read the entire manual.

Contents of This Manual

Read the chapter summaries below and at the start of each chapter to get an idea of its respective contents.

Chapter 1 Overview
This chapter explains the main features of the CDP-3100 CD player and CDS-3100 control unit.

Chapter 2 Function of Parts and Controls
This chapter explains the functional parts of the CDP-3100/ CDS-3100, how they work and how to use them.

Chapter 3 Preparations
This chapter explains precautions, making connections, and maintenance procedures.

Chapter 4 Operations
This chapter explains the basic playback and cue point search operations.

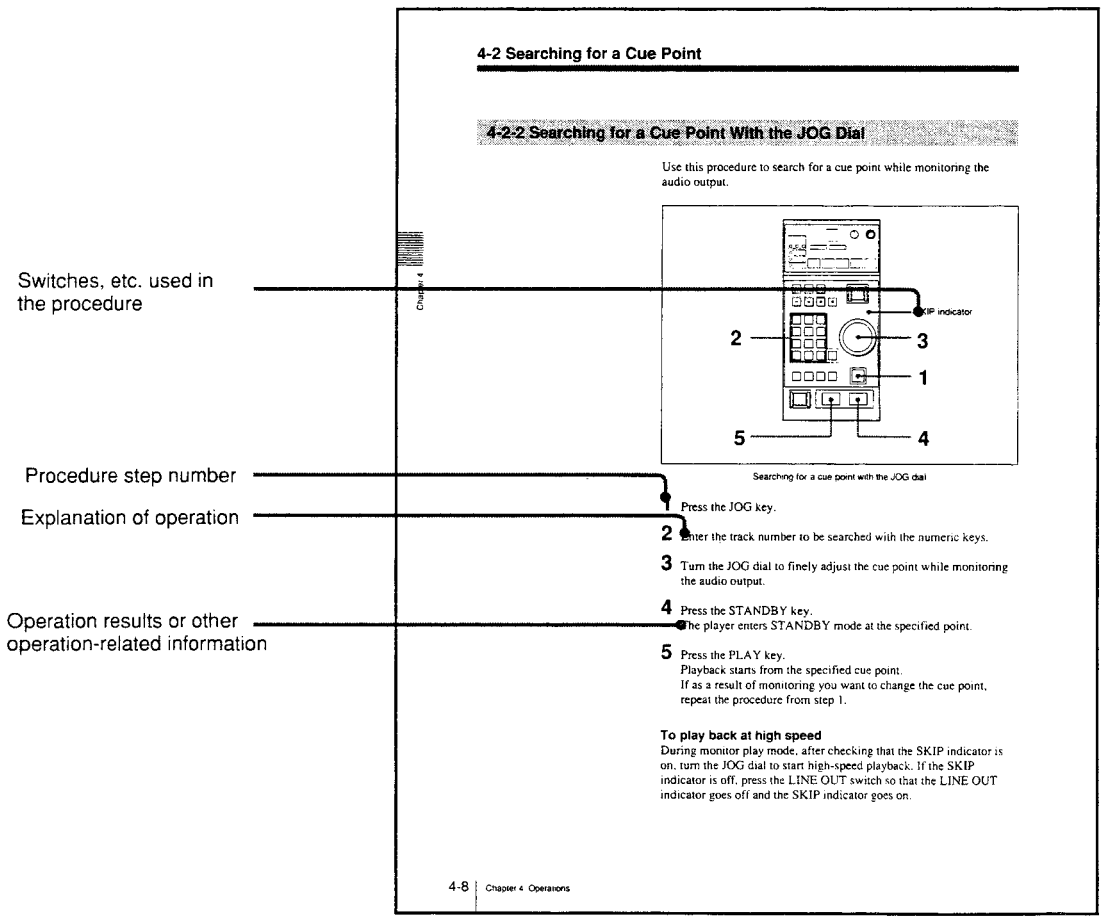
Appendix
- **Specifications**
  This appendix provides the technical specifications of the CDP-3100/CDS-3100 system and optional DABK-3101 memory board.

Index
An index of important items and terms provides easy access to needed information.

How to Use This Manual

Explanations of procedures

Each procedure is accompanied by an illustration in which the step numbers are indicated and connected by line to the respective key or switch to be operated. Other switches or indicators that require checking also appear in the illustration.


Switches, etc. used in the procedure
Procedure step number
Explanation of operation
Operation results or other operation-related information
4-2 Searching for a Cue Point
4-2-2 Searching for a Cue Point With the JOG Dial
Use this procedure to search for a cue point while monitoring the audio output.
SKIP indicator
2
3
1
5
4
Searching for a cue point with the JOG dial
1 Press the JOG key.
2 Enter the track number to be searched with the numeric keys.
3 Turn the JOG dial to finely adjust the cue point while monitoring the audio output.
4 Press the STANDBY key.
The player enters STANDBY mode at the specified point.
5 Press the PLAY key.
Playback starts from the specified cue point.
If as a result of monitoring you want to change the cue point, repeat the procedure from step 1.
To play back at high speed
During monitor play mode, after checking that the SKIP indicator is on, turn the JOG dial to start high-speed playback. If the SKIP indicator is off, press the LINE OUT switch so that the LINE OUT indicator goes off and the SKIP indicator goes on.
4-8 Chapter 4 Operations

Procedure example

Technical Terms

Definitions of technical terms appearing for the first time appear at the bottom of the respective page.

Maintenance Manual

In addition to this operation manual, the CDP-3100 comes with a separate maintenance manual. Refer to this maintenance manual for details on the internal electrical and electronic circuits and internal switches.

Chapter 1 Overview

This chapter explains the main features and the functions of the CDP-3100/CDS-3100 system.

1-1 Introducing the CDP-3100/CDS-3100 1-2
1-2 Features 1-3
1-2-1 Features of the CDP-3100 Compact Disc Player Unit 1-3
1-2-2 Features of the CDS-3100 Compact Disc Player Control Unit 1-4
1-2-3 Features of the Optional DABK-3101 Memory Board 1-4

1-1 Introducing the CDP-3100/CDS-3100

The CDP-3100/CDS-3100 is a system consisting of a compact disc player unit and compact disc player control unit. This system provides the following professional features:

- One-control unit/one-player system configuration
- Various interface options
- Precise and easy cue point searching

The following major functions are provided:

System component configuration

Due to the one-to-one correspondence between player and control unit, single-unit-like operations are possible while providing the merits of a two-unit system component configuration.
Connection of an optional interface board (DABK-3102 or DABK-3103) provides the added features of synchronization with video signals, 9-pin remote control, digital output (AES/EBU format) at 48 kHz, and connectability to the DAE-3000 editing system.

Play functions

The player supports normal playback (monitor play and on-line play), as well as variable-speed playback over a range of ±12.5%.

Searching for a cue point

You can do a cue point search by frame using AMS with three levels of sound detection, through an index search, or through the input of numerical values.
With the optional DABK-3101 memory board, you can do searches using the JOG dial while monitoring the sound.

1-2 Features

1-2-1 Features of the CDP-3100 Compact Disc Player Unit

AMS (Automatic Music Sensor)

The AMS detects the start of a track not through time data on the disc but by the actual rise in signal level. Three levels of sound detection (for auto-cueing) can be set (–57 dB, –63 dB, –78 dB) with DIP switches 5 and 6 on the rear of the player.

End Alarm Function

The player outputs an alarm signal to external devices 15 seconds before playback of each track ends.

Switchable Operating Modes

Use DIP switches 7 and 8 to select the operating mode.
The following operating modes with varying levels of protection are available:

Operating mode 1: To prevent on-the-air misoperations, on-line play starts only in STANDBY mode and all operation keys except the STOP key are locked during on-line play.

Operating mode 2: On-line play is possible in modes other than STANDBY mode. All operation keys except the STOP key are locked during on-line play.

Operating mode 3: Reserved.

Operating mode 4: On-line play protection functions are off. The player enters any mode when you press the corresponding operation key.

Channel Origin Code to Digital Signal Output

You can set a channel origin code in the AES/EBU-format digital audio signal output from the DIGITAL OUT connector on the rear panel of the player. This code allows digital audio mixers or other equipment connected to the player to identify the source of the output signal.

1-2-2 Features of the CDS-3100 Compact Disc Player Control Unit

Cue Point Searching Using the JOG Dial

In JOG mode, you can search for cue points on a frame-by-frame basis (1 frame equals 13.3 ms) by turning the JOG dial. If the optional DABK-3101 memory board is installed, you can search for cue points while monitoring the sound.

Index* Search Function

If the inserted disc is indexed, you can perform both cueing and single play through index point specification in INDEX mode.

1-2-3 Features of the Optional DABK-3101 Memory Board

Memory Jog Function

This function allows you to finely tune a cue point by monitoring the sound as you turn the JOG dial in JOG mode.
The player performs this function by storing approximately 2.5 seconds of sound data before and after the given cue point (five seconds in total), then outputting the data as you turn the JOG dial.

Memory Start Function

This function stores sound data from the desired cue point into an IC memory and uses it to begin immediate and precise playback, thus eliminating the gap that normally occurs between the pressing of the PLAY key and the start of pickup of disc data.

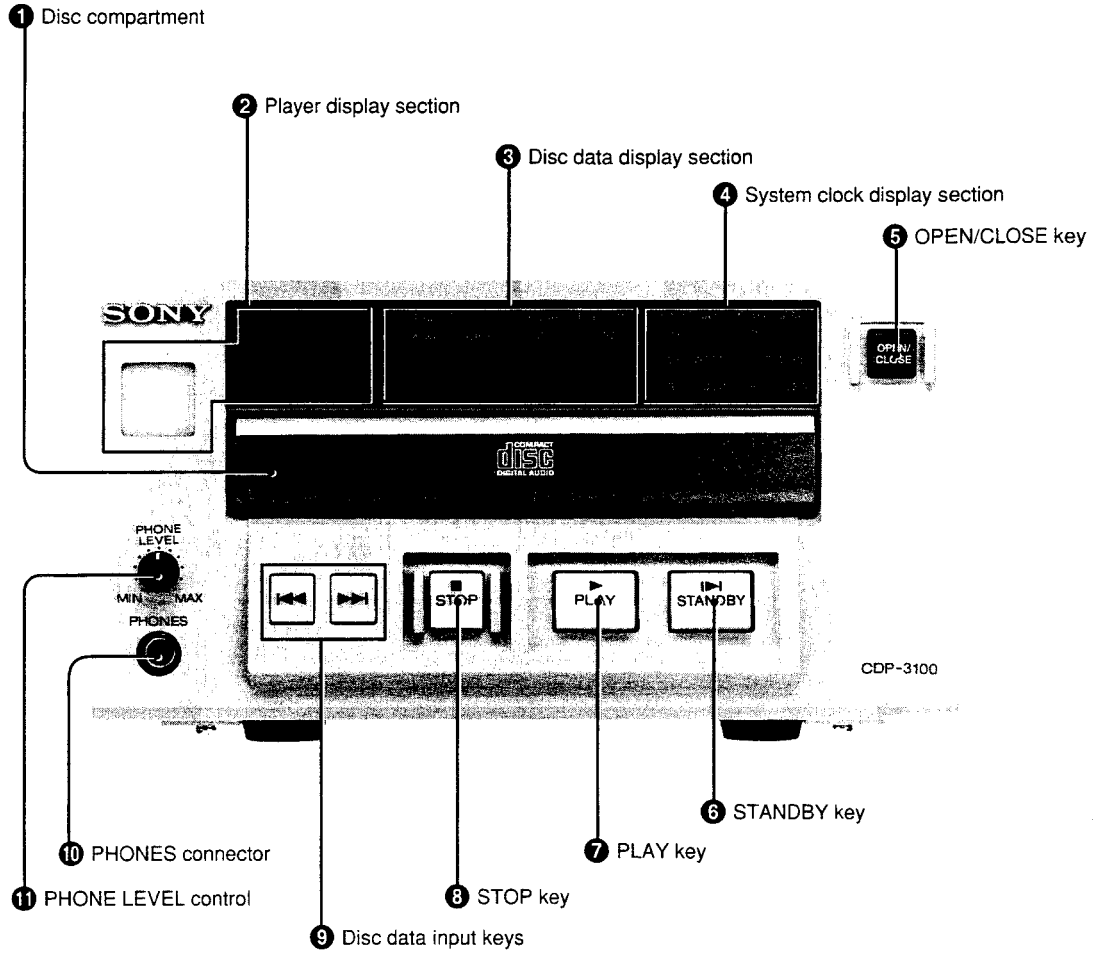
* **Index**
An index number is a recorded track mark that allows the detection and relocation of specific positions. A track can be indexed with up to 99 index numbers, with 01 as the start of the track and 00 as the blank space between tracks.

Chapter 2
Function of Parts and Controls

This chapter explains the names and function of each part of CDP-3100/CDS-3100 system.

2-1 Front Panel **2-2**
2-2 Rear Panel **2-4**
2-3 Control Unit **2-6**

2-1 Front Panel



Front panel

❶ Disc compartment
Insert the compact disc here.

❷ Player display section
Consists of an indicator for attaching the supplied player number sheet and two status indicators.

Player number indicator: Lights up (red) during on-line play when an external on-the-air signal is input through the REMOTE-3 connector.

STANDBY: Lights up after the player enters STANDBY mode, when LINE OUT is set to ON.

ON LINE: Lights up during on-line play.

❸ Disc data display section
Consists of two counter display indicators and an eight-digit counter.

Counter display indicators

TIME CODE: (Applicable when optional interface board (DABK-3102 or DABK-3103) is installed.) Lights up when time data on the disc is being converted into time code and displayed on the counter.

REMAINING TIME: Lights up when the remaining time of the current track is displayed on the counter.

Counter

TRACK NO.: Indicates the current track number. While lead-in or lead-out signal data are being read, only "00" (lead-in) or "AA" (lead-out) appear on the counter.

INDEX: Indicates the current index number when an indexed disc is loaded. Flashes during an index number search.

MIN/SEC: Indicates minutes and seconds. Ordinarily displays the elapsed playing time of the current track. Displays the remaining playing time of the current track in the REMAINING TIME display.

❹ System clock display section

SYSTEM CLK indicators

These indicators show the external synchronization status when the optional DABK-3102 or DABK-3103 interface board is installed.

INT: Lights up when player operates according to the internal clock.

EXT WORD: Lights up when the internal clock is synchronized with an external word signal.

REF VIDEO: When the DABK-3102 is installed, this indicator lights up to show the internal clock is synchronized with an external video signal.

OUTPUT SYNC indicators

When the DABK-3102 is installed, these indicators identify the signal being converted to a sampling frequency and output as the reference for digital signals.

DI: AES/EBU format digital input signal.

EXT WORD: External word signal.

REF VIDEO: External video signal.

❺ OPEN/CLOSE key

Press to open or close the disc compartment. You can also close the compartment by pushing it inward.

❻ STANDBY key

Press to search for a cue point. After pressing, the player enters STANDBY mode. Playback restarts when you press the PLAY key.

❼ PLAY key

Press to start playback.

❽ STOP key

Mutes the audio signal output and stops playback. After playback stops, the disc continues to rotate for ten minutes, then stops. The STOP key flashes when the disc stops rotating.

❾ Disc data input keys

NEXT: Starts search for the beginning of the next* track (00 MIN, 00 SEC, 00 FRAME). When you activate AMS, the player automatically detects the start of the next track by the initial rise in the audio signal.

PREVIOUS: Starts search for the beginning of the previous* track (00 MIN, 00 SEC, 00 FRAME). When you activate the AMS, the player automatically detects the start of the previous track by the initial rise in the audio signal.

❿ PHONES connector (stereo phone jack)

Connects headphones.

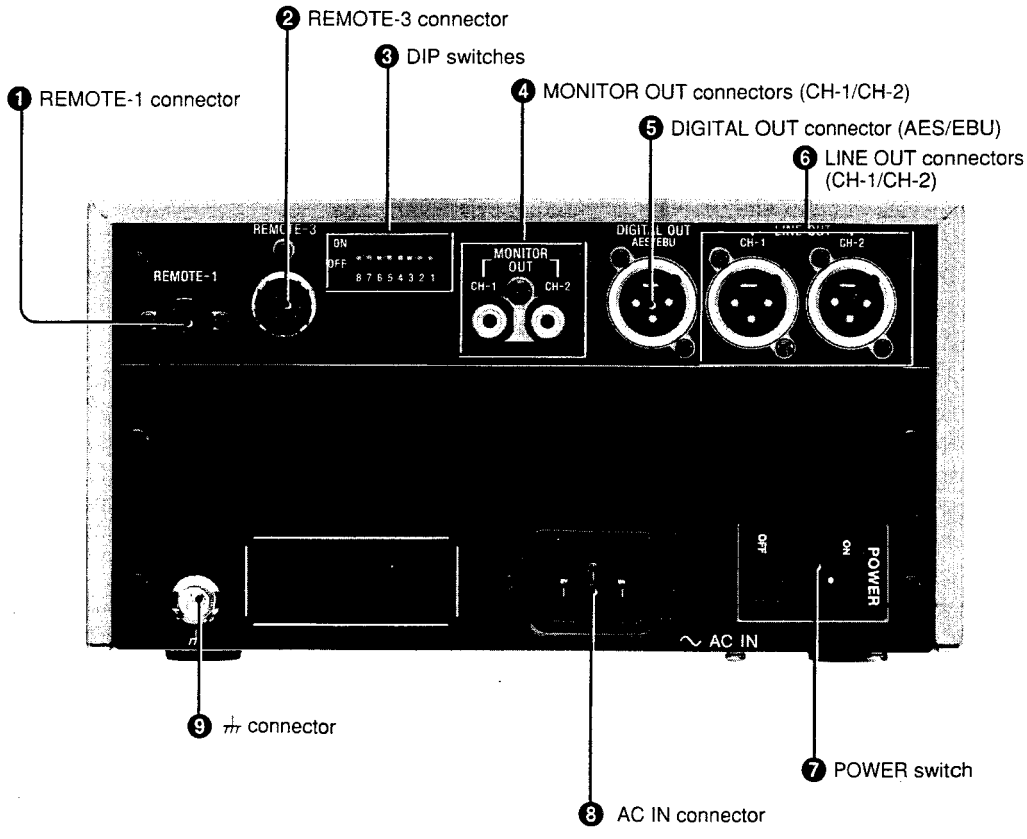
⓫ PHONE LEVEL control

Adjusts the audio output level of the PHONES connector.

* The displayed track number is the current track for reference purposes. If the setting has been cleared, the track being traced by the pickup is the current track.

** When a mode is activated, the respective mode key lights up.

2-2 Rear Panel

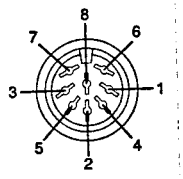


Rear panel

❶ REMOTE-1 connector (10-pin)
Connect to the CDS-3100 control unit with the supplied cable.

❷ REMOTE-3 connector (DIN, 8-pin)
Connect to an external device for parallel fader start control.

Pin assignment



Pin assignment

Pin No.	Signal	Contents
1	PLAY COMMAND IN	PLAY command. Changeable to PLAY/ STOP command.
2	STOP COMMAND IN	STOP command.
3	ON AIR COMMAND IN	ON AIR command. Activates the player number indication (red) of the player and control unit. Deactivates the STOP key operation; only the fader stop command is valid.
4	PLAY STATUS OUT	Indicates the on-line play status of the player.
5	STOP STATUS OUT	Indicates the stop status of the player.
6	END ALARM STATUS OUT	Outputs alarm signal 15 seconds before the end of playback.
7	5V OUT	5V OUT
8	GND	GND

❸ DIP switches (SW-1 to SW-8)
Set the function and operating mode of the player.
See page 4-4 for the settings.

❹ MONITOR OUT connectors (CH-1/CH-2, pinjack)
Connect to an amplifier and speakers for sound monitoring.

❺ DIGITAL OUT connector (AES/EBU)
Outputs AES/EBU format digital audio signal during on-line or monitor play mode.

❻ LINE OUT connectors (CH-1/CH-2, XLR type, 3-pin)
Outputs audio signals during on-line play mode.

❼ POWER switch
Turns the player on and off. When turned on, the version number of the internal ROM and the channel origin code are displayed for two seconds each, then the normal display goes on.

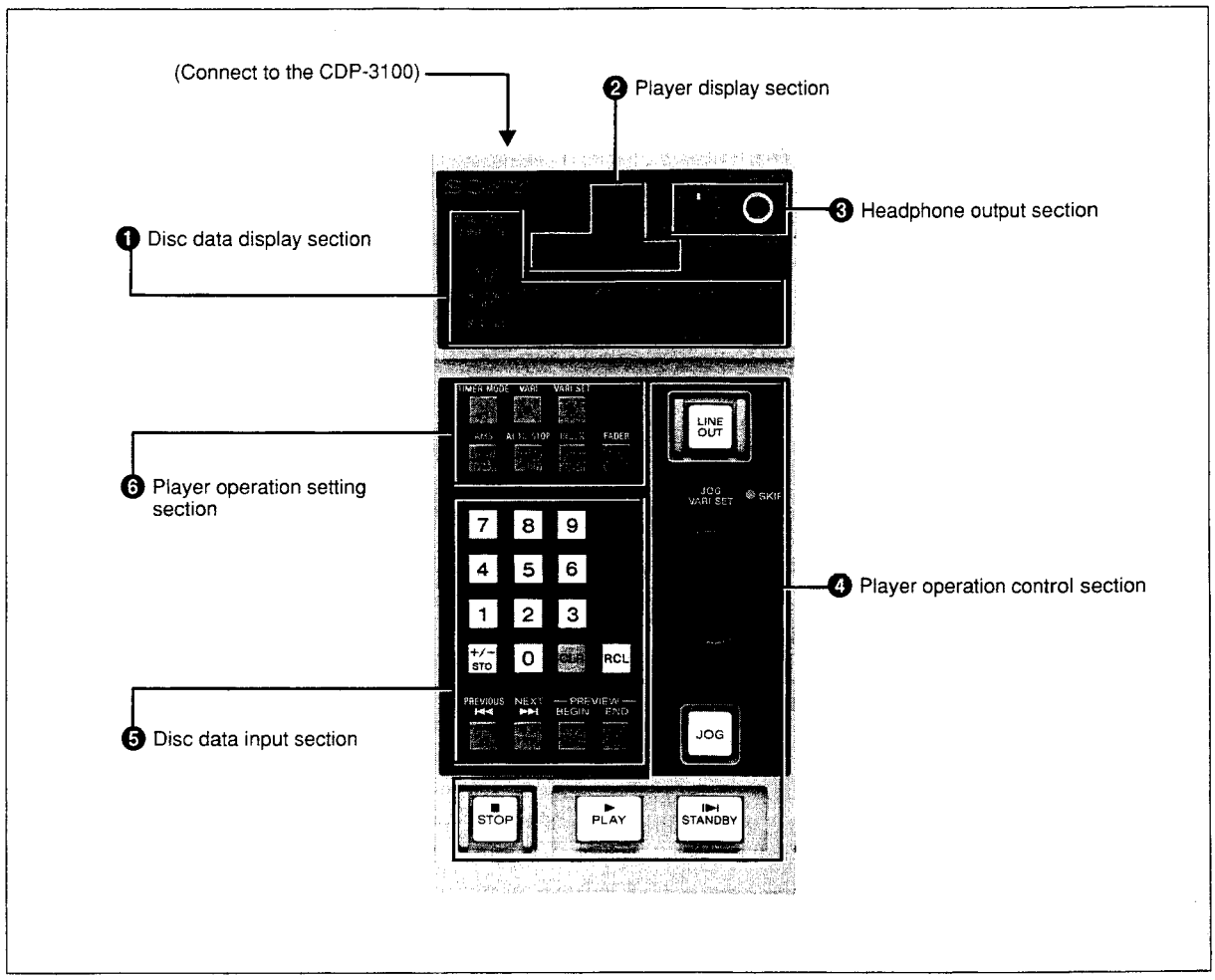
Note

After turning the power off, wait a few seconds before turning the power on again.

❽ AC IN connector
Connect to an AC outlet with the supplied AC power cord.

❾ ⏚ (ground) connector
Connect directly to the ground.

2-3 Control Unit



Control unit

❶ Disc data display section

This section consists of three time code indicators, three counter display indicators, and a ten-digit counter.

TIME CODE indicators

When an optional interface board (DABK-3102 or DABK-3103) is installed, these indicators show the output mode during output of time code from the player, and during the conversion to and output of time code from time data on the disc.

ND: Non-drop frame mode (SMPTE, 30 Hz).
D: Drop frame mode (SMPTE, 29.97 Hz).
EBU: EBU signal (25 Hz).

Counter display indicators

Press the TIMER MODE key to change the counter display.

ACTUAL TIME: Displays the current track number and the elapsed playing time of the current track in frame units.
REMAINING TIME: Displays the remaining playing time of the current track in seconds.
SET TIME: Displays the cue point in STANDBY or JOG mode.

Counter

TRACK NO.: Indicates the current track number. While lead-in or lead-out signal data are being read, only "00" (lead-in) or "AA" (lead-out) appear.
INDEX: Indicates the current index number when an indexed disc is loaded. Flashes during an index search.

MIN/SEC/FRAME: Indicates minutes, seconds, and frames. Ordinarily displays the elapsed playing time of the current track in frame units. Displays the remaining playing time of the current track in seconds in the REMAINING TIME display.

❷ Player display section

This section consists of an indicator for attaching a supplied player number sheet, and two status indicators.

Player number indicator: Lights up (red) during on-line play when an external on-the-air signal is input through the REMOTE-3 connector.

STANDBY: Lights up after the player enters STANDBY mode when LINE OUT is set to ON.

ON LINE: Lights up during on-line play.

❸ Headphone output section

PHONES connector (stereo phone jack)

Connect headphones.

PHONE LEVEL control

Adjusts the audio output level of the PHONES connector.

❹ Player operation control section

LINE OUT switch

Turn ON to output signals through the LINE OUT connectors on the rear panel of the player. Lights up (ON) when pressed once; turns off (OFF) when pressed again.

SKIP indicator

Lights up when the high-speed playback is available on the player.

JOG/VARI SET dial

Operation varies according to the mode. Turn to the right for disc operation in the normal direction, and to the left for disc operation in the reverse direction.

- Use to change the cue point in JOG mode.
- Use to perform high-speed playback in monitor play mode (SKIP indicator lights up).
- Use to adjust the playback speed within a range of ±12.5% after pressing the VARI SET key (MIN/SEC/FRAME on the counter show a percentage value).

(The JOG/VARI SET dial is referred to as the "JOG dial".)

JOG key

Press to enter JOG mode. In this mode you can set cue points by using the JOG dial or through direct entry from the numeric keys to the data input section.

STANDBY (⏭) key

Press to enter STANDBY mode at specific cue points.

PLAY (▶) key

Press to start online play or monitor play.

STOP (■) key

Press to mute output sound and stop playback (the player enters STOP mode.). After the playback stops, the disc continues to rotate for ten minutes, then stops. The STOP key flashes when the disc stops rotating.

❺ Disc data input section

Numeric keys (0 to 9)

Use to enter a cue point numerically. Enter two digits for each of the following item in the order given: track number, minutes, seconds and frames. To enter a single digit for any item, enter zero first then the desired number. (When an invalid digit is entered, it is not displayed on the counter.) If minutes, seconds, or frames are omitted, they are treated as "00". To enter an index number, press the INDEX key, then enter the following items in the following order: track number, index number, minutes, seconds, and frames.

+/– STO (store) key

Press this key to enter a + or – sign before the playback speed after pressing the VARI SET key. Up to nine cue points can be stored in JOG mode. To store a cue point, press a numeric key (1 to 9) while holding down the +/– STO key. Cue points are saved until the power is turned off or the disc compartment opened.

CLR (clear) key

Press to clear all data entered to the disc data input section.

RCL (recall) key
Press to recall a stored cue point. To recall a cue point, press the respective numeric key (1 to 9) while holding down the RCL key. To go back to the last cue point recalled, press 0 while holding down this key.

NEXT key (▶▶I)
Press to locate the beginning of the next* track (00 MIN, 00 SEC, 00 FRAME). When the AMS is activated, the player automatically detects the beginning of the next track by the initial rise in the audio signal.

PREVIOUS key (I◀◀)
Press to locate the beginning of the previous* track (00 MIN, 00 SEC, 00 FRAME). When the AMS is activated, the player automatically detects the beginning of the previous track by the initial rise in the audio signal.

PREVIEW keys
BEGIN: Press in STANDBY mode. After locating the beginning of a track, monitor play starts and continues as long as you press this key (top rehearsal function).
END: Press in STANDBY mode. The last 15 seconds of the current track are played when you press this key (end rehearsal function). The player automatically returns to STANDBY mode afterwards.

❻ Player operation setting section
TIMER MODE key
Press to change ouput mode of time code and the counter display. Press during playback to switch between ACTUAL TIME and REMAINING TIME (the respective counter mode indicator lights up). When an optional interface board (DABK-3102 or DABK-3103) is installed, pressing the key switches among ACTUAL TIME, REMAINING TIME, and TIME CODE (SMPTE ND, SMPTE D, or EBU).
Press during STANDBY or JOG mode to switch between SET TIME and REMAINING TIME (the respective counter mode indicator lights up). When an optional interface board (DABK-3102 or DABK-3103) is installed, pressing the key switches among SET TIME, REMAINING TIME, and TIME CODE (SMPTE ND, SMPTE D, or EBU).

VARI (variable) key/indicator
Press to activate variable-speed playback. Pressing the PLAY key afterwards starts playback at the speed previously set with the JOG dial or the numeric keys.

VARI SET (variable set) key/indicator
Press to set the playback speed with the JOG dial or numeric keys.

AMS key/indicator
Press to activate the AMS (Automatic Music Sensor). If you specify the track number afterwards, the player searches for the start of the track (cue point) by the initial rise in audio signal, not the time data on the disc (auto cue function).

SINGLE PLAY key/indicator
Press to specify a single playback of the current track. The player enters STOP mode when playback finishes.

INDEX key/indicator
Press to initiate an index number search. After pressing this key, you can enter the index number to the INDEX section of the counter. You can also initiate a single playback by index number.

FADER key/indicator
Press to control the player through an external device connected through the REMOTE-3 connector (parallel control).

* The displayed track number is the current track for reference purposes. If the setting has been cleared, the track being traced by the pickup is the current track.

Chapter 3 Preparations

This chapter explains handling precautions, cable connections, and the cleaning of the player and compact discs.

3-1 Precautions 3-2
3-1-1 Installation Precautions 3-2
3-1-2 Handling Precautions 3-2
3-2 Connections 3-3
3-2-1 Precautions 3-3
3-2-2 Basic Connection Examples 3-3
3-3 Maintenance 3-4
3-3-1 Cleaning the Player 3-4
3-3-2 Cleaning Discs 3-4

3-1 Precautions

3-1-1 Installation Precautions

Install the player on a flat surface in a temperature-controlled room. Avoid using or storing the player in any of the following locations:

- Extremely hot or cold locations
- Damp locations
- Locations subject to severe vibrations
- Locations subject to strong magnetic fields
- Locations subject to many hours of direct sunlight and locations close to heating equipment

3-1-2 Handling Precautions

- Check the player's operating voltage before you plug it in. It must be identical with that of your local power supply. See "Operating Voltage".
- If you drop any liquid or metal object inside the player, immediately stop using it, unplug the power cord from the socket, and contact Sony service personnel.
- If the player will be unused for a long time, make sure to unplug its power cord from the socket. When unplugging the power cord, grasp it by the plug, not the cord.
- Never remove the cabinet. The laser light used in the player can cause damage to your eyes. If the player needs to be inspected, contact Sony service personnel.

Condensation

Bringing in the player from a cold place or turning on the room heating may cause moisture to condense on the lens within the player, resulting in abnormal operation. If this occurs, leave the power on. The moisture will evaporate within an hour and the player will function normally again. If the player does not operate normally after a few hours, contact Sony service personnel.

If Trouble Occurs

Should you detect abnormal noise, smell, or smoke, immediately turn off the power, unplug the power cord from the socket, and contact Sony service personnel.

AC Power Cord

Do not use any power cord other than the one supplied with the player.

Operating Voltage

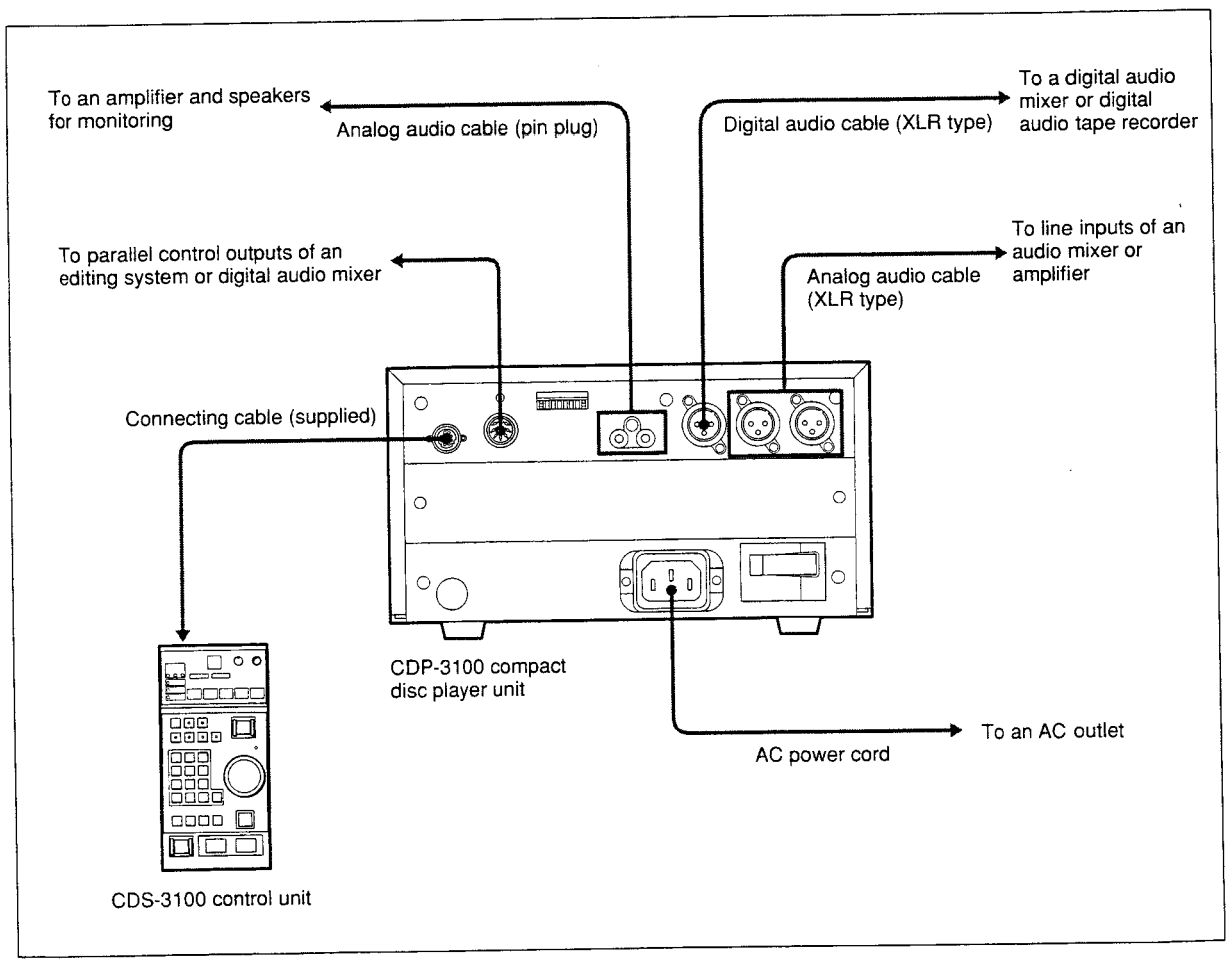
U.S.A. and Canada model	120 V AC, 60 Hz
European model	220 - 230 V AC, 50/60 Hz
U.K. model	240 V AC, 50 Hz

3-2 Connections

3-2-1 Precautions

- Turn off all equipment before connecting or disconnecting any cables.
- Make sure all electrical plugs are firmly inserted since incomplete connections may cause noise.
- Use a cord somewhat longer than needed to prevent the plug from being pulled out when jarred or shaken.

3-2-2 Basic Connection Examples


To an amplifier and speakers for monitoring
Analog audio cable (pin plug)
Digital audio cable (XLR type)
To a digital audio mixer or digital audio tape recorder
To parallel control outputs of an editing system or digital audio mixer
Analog audio cable (XLR type)
To line inputs of an audio mixer or amplifier
Connecting cable (supplied)
CDP-3100 compact disc player unit
AC power cord
To an AC outlet
CDS-3100 control unit

Basic connection examples

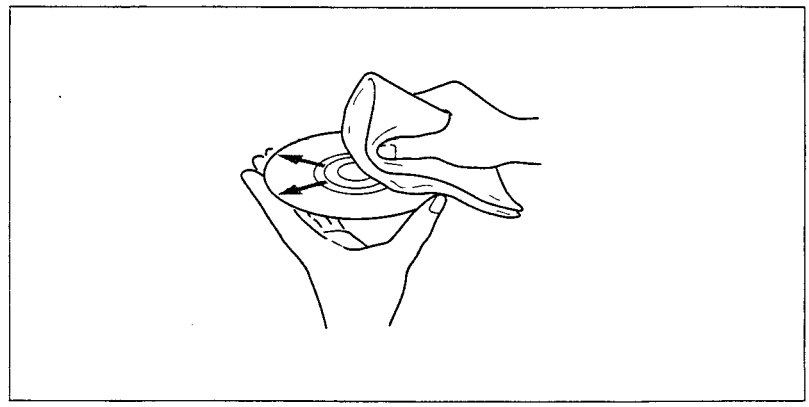
3-3 Maintenance

3-3-1 Cleaning the Player

Use a soft cloth slightly moistened with a mild detergent solution to clean the cabinet and panel surfaces. Do not use solvents that may damage the surface such as paint thinner, benzine, or alcohol.

3-3-2 Cleaning Discs

Gently wipe the disc from the center straight outward with a soft cloth to remove fingerprints or dust.



Cleaning discs

Note

Do not use solvents such as benzine or cleansers or anti-static sprays for LP records.

Chapter 4 Operations

This chapter outlines the various playback functions of the CDP-3100 player and explains the procedures for playing back tracks and searching for cue points.

4-1 Overview of Player Operations 4-2
4-1-1 Player Modes 4-2
4-1-2 DIP Switches 4-4
4-2 Searching for a Cue Point 4-6
4-2-1 Specifying a Cue Point Numerically 4-6
4-2-2 Searching for a Cue Point With the JOG Dial 4-8
4-2-3 Memory Jog and Memory Start Functions (With the Optional DABK-3101 Memory Board Installed) 4-9
4-2-4 Checking the Contents of a Track 4-11
4-2-5 Storing a Cue Point 4-12
4-3 Playback Procedures 4-13
4-3-1 Normal Playback 4-13
4-3-2 Variable-Speed Playback 4-15
4-4 Setting the Channel Origin Code 4-17

4-1 Overview of Player Operations

4-1-1 Player Modes

The player has the five following modes:

- JOG mode
- STANDBY mode
- Monitor play mode
- On-line play mode
- STOP mode

JOG Mode

Use this mode to set cue points.

Activating the mode: Press the JOG key on the control unit, so that its indicator lights up.

Result: The track section corresponding to the point when the JOG key is pressed plays repeatedly. (If the player is in STOP mode when you press the JOG key, the section corresponding to the point when the STOP key was pressed repeats.)

Subsequent operations: Set the cue point with the JOG dial or the numeric keys. The counter in the disc data indication section shows the entered cue point as SET TIME data.

STANDBY Mode

Use this mode to place the player in standby mode at specified cue points.

Activating the mode: Press the STANDBY key on either the front panel of the player or the control unit.

Result: The pickup stops at the same position over the span of a single disc rotation starting from the specified cue point. Monitor output is muted at this time.

Subsequent operations: Press the PLAY key to start playback from the cue point.

Press the BEGIN key to listen to the beginning of the current track. The audio signal is output as long as you hold down the key. Press the END key to listen to the final 15 seconds of the current track.

Monitor Play Mode

Use this mode to verify the contents of a cue point. This is particularly useful for cue points in the middle of a track.

Activating the mode: Set LINE OUT to OFF.

Result: Audio signals are output from the DIGITAL OUT and MONITOR OUT connectors on the rear panel of the player, and from the PHONES connectors on the front panel of the player and the control unit to allow monitoring by headphones, but not from the LINE OUT connectors on the rear panel of the player.

Subsequent operations: Press the PLAY key to start playback from cue points specified with the JOG dial or the numeric keys.

On-line Play Mode

Use this mode for on-the-air play.

Activating the mode: Press the LINE OUT switch on the control unit so that the indicator goes on. If the DIP switch 1 on the rear panel of the player is set to ON, the player enters on-line play mode regardless of the LINE OUT switch setting.

Result: Audio signals are output from the LINE OUT connectors on the rear panel of the player.

Subsequent operations: Press the PLAY key to start on-line playback from cue points specified with the JOG dial or the numeric keys.

STOP Mode

Use this mode to stop playback and to enter a new command.

Activating the mode: Press the STOP key.

Result: Audio signals from the LINE OUT connectors, PHONES connectors, DIGITAL OUT connector, or MONITOR OUT connectors are muted. The disc in the player continues to rotate for ten minutes, then stops.

Contents of the non-volatile memory unit

The built-in non-volatile memory unit stores the following information:

- Channel origin code
- Cue points (0 to 9)

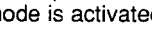
4-1-2 DIP Switches

Use the DIP switches on the rear panel of the player to select the following functions and operating modes:

Forced online mode (SW-1)

When set to ON, the on-line play mode is activated whenever the PLAY key is pressed, regardless of the setting of the LINE OUT switch on the control unit. Set this switch to ON when operating only from the front of the player.
ON: The on-line play mode is always activated. Control unit operations are disabled.
OFF: Mode activation depends on the LINE OUT switch setting on the control unit.

Fader type setting (SW-2)

Use this switch to select the type of signal input to the REMOTE-3 connector on the rear panel of the player during fader playback.
ON: Edge-type signal input. The PLAY or STOP mode is activated by the fall of the edge (5 V) input. ( )
OFF: Level-type signal input. The PLAY mode is activated by the fall of the PLAY input signal and the STOP mode is activated by the rise of the PLAY input signal. ()

Fader-delay function (SW-3)

Use this switch to enable the fader-delay function. During parallel control of the player from an external device, playback starts 250 ms after the input of the PLAY command.
OFF: The fader-delay function is disabled. (Delay time: 0 ms)
ON: The fader-delay function is enabled. (Delay time: 250 ms)

Auto-remain function (SW-4)

Use this switch to specify the automatic display of the remaining time of the track on the counter during on-line play.
ON: The auto-remain function is enabled.
OFF: The auto-remain function is disabled.

Audio detection level setting during AMS (SW-5/6)

Use these switches to set the signal rise detection level by the AMS function.

SW-6	SW-5	Detection level
OFF	OFF	AMS OFF
OFF	ON	–57 dB
ON	OFF	–63 dB
ON	ON	–78 dB

Operating mode selection (SW-7/8)

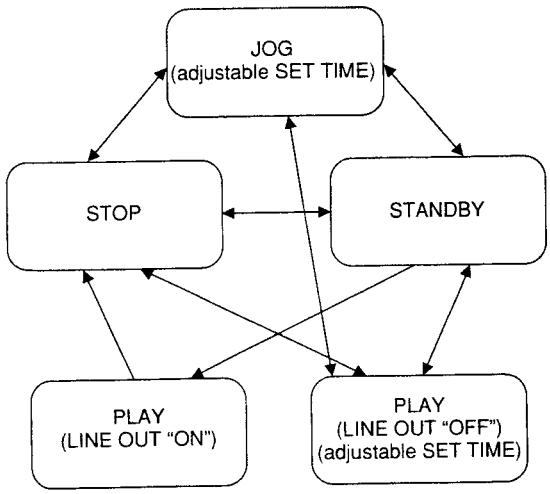
Use these switches to select the operating mode of the player.

SW-8	SW-7	Operating mode	Status
OFF	OFF	Mode 1	On-line play starts only from STANDBY mode to prevent on-the-air misoperations. All keys except the STOP key are disabled during on-line play.
OFF	ON	Mode 2	On-line play can be started from modes other than STANDBY mode. All keys except the STOP key are disabled during on-line play.
ON	OFF	Mode 3	Reserved.
ON	ON	Mode 4	On-line play can be started from modes other than STANDBY mode. All keys are enabled during on-line play.

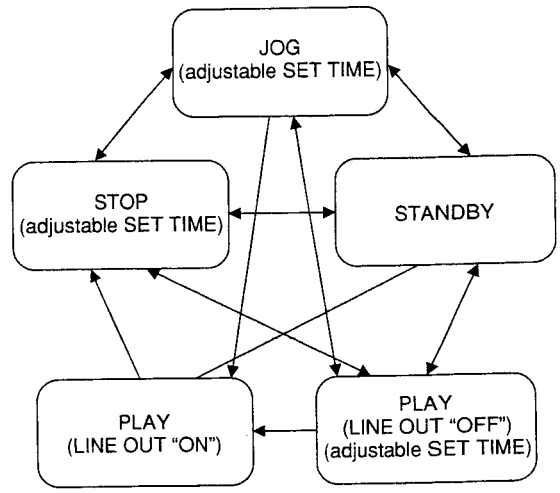
Operating modes and procedures

The following chart shows the operations that are possible in each operating mode.

Operating mode 1



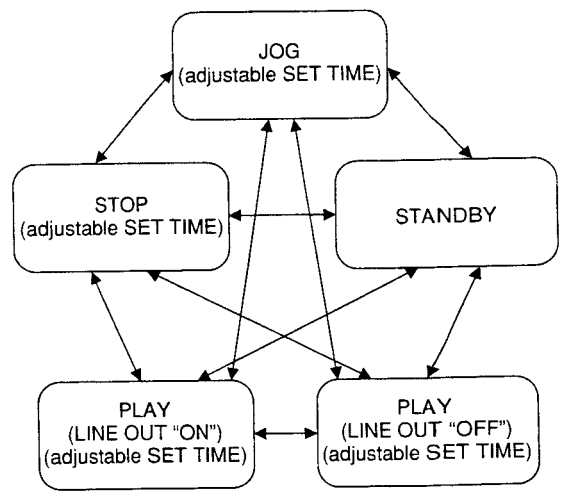
Operating mode 2



Operating mode 3

(Reserved.)

Operating mode 4



4-2 Searching for a Cue Point

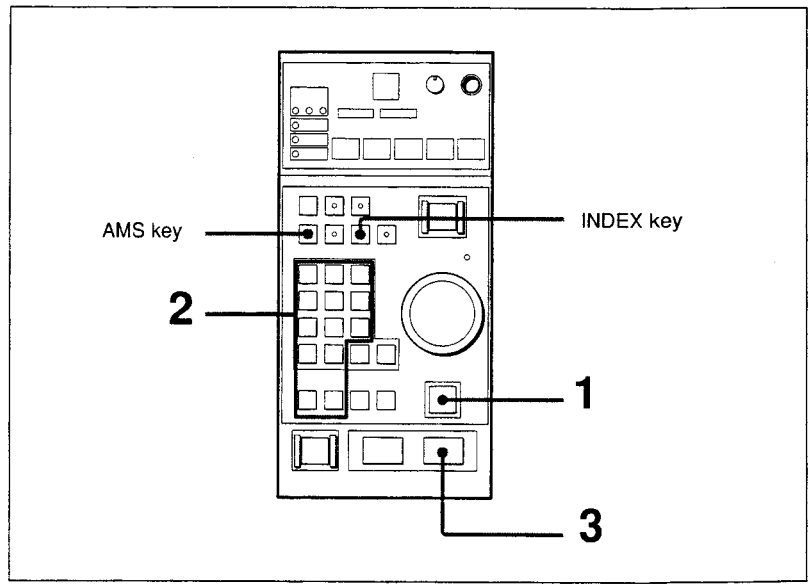
You can cue to the beginning of desired tracks by entering cue points with the disc data input keys on the front panel of the player, or perform more precise cue point searches with the JOG dial on the control unit.
This section explains the following procedures for cue point searching using the CDS-3100 control unit:

- Searching for a cue point through numerical input
- Searching for a cue point with the JOG dial

4-2-1 Specifying a Cue Point Numerically

You can specify a cue point by track number, index point number, or time data entered directly to the disc data input section.

Basic Procedure for Numerical Cue Point Entry



Basic procedure for searching for a track

1 Press the JOG key.

2 Enter the desired track number with the numeric keys.
For example, to search for the track 3, press 0 then 3.

3 Press the STANDBY key.
The player goes to the beginning of the desired track, then enters STANDBY mode.

To search for the previous or next track

Press the PREVIOUS or NEXT key in step 2 of the procedure.

To reenter the track number

Press the JOG key again, then repeat the procedure from step 1.

Searching for an Index Point

Press the INDEX key, then perform the basic procedure described on the previous page.
Pressing the INDEX key allows you to enter the index number to the INDEX section. For example, to search for index number 2 of track 3, enter 0, 3, 0, 2 in step 2.
While the player is in index mode, pressing the PREVIOUS or NEXT key causes a search for the previous or next index number.

Searching for the Beginning of a Track by Rise in Audio Signal

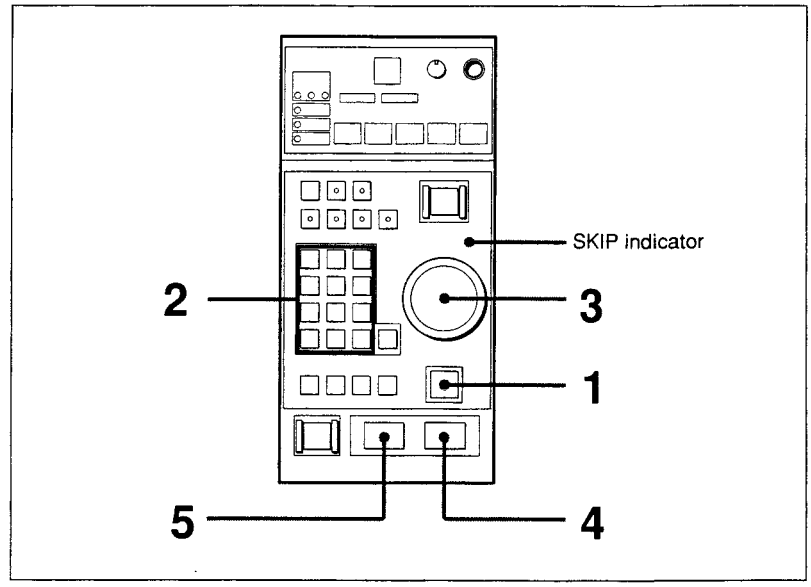
Press the AMS key, then perform the basic procedure described on the previous page.
When the AMS is activated, the player detects the start of the track (cue point) by the actual rise in the audio signal.

Searching for a Section Within a Track (Time Data Specification)

After entering the track number in the step 2, enter the respective time data.
For example, to search for a point located 20 minutes, 20 seconds, and 8 frames from the start of track 3, enter 0, 3, 2, 0, 2, 0, 0, 8.

4-2-2 Searching for a Cue Point With the JOG Dial

Use this procedure to search for a cue point while monitoring the audio output.



Searching for a cue point with the JOG dial

1 Press the JOG key.

2 Enter the track number to be searched with the numeric keys.

3 Turn the JOG dial to finely adjust the cue point while monitoring the audio output.

4 Press the STANDBY key.
The player enters STANDBY mode at the specified point.

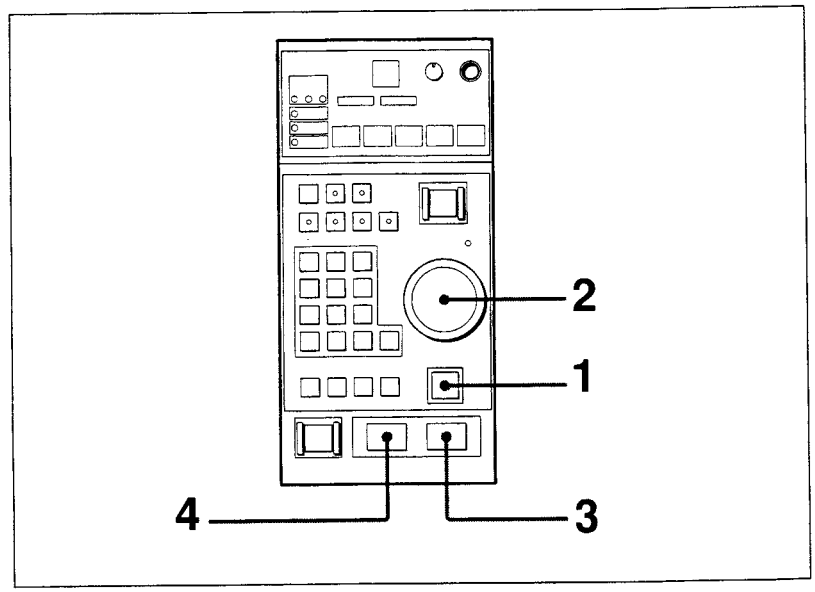
5 Press the PLAY key.
Playback starts from the specified cue point.
If as a result of monitoring you want to change the cue point, repeat the procedure from step 1.

To play back at high speed

During monitor play mode, after checking that the SKIP indicator is on, turn the JOG dial to start high-speed playback. If the SKIP indicator is off, press the LINE OUT switch so that the LINE OUT indicator goes off and the SKIP indicator goes on.

4-2-3 Memory Jog and Memory Start Functions (With the Optional DABK-3101 Memory Board Installed)

The optional DABK-3101 memory board allows you to store and monitor track data for very accurate cueing operations.
The memory board uses a built-in IC memory to stores track data before and after a specified point on a track. By turning the JOG dial, you can output and monitor this data on headphones. This process is called the memory jog function.
After the desired point is determined, five seconds of track data starting from that point are stored to memory. This data can then be instantly recalled and output to initiate disc output, eliminating the time gap that normally occurs between key activation and disc output. This process is called the memory start function.



Memory jog and memory start functions (with the DABK-3101 installed)

1 Press the JOG key.
When the JOG key is pressed, the player stores 2.5 seconds track data before and after the current point.
The JOG key flashes for about five seconds, then lights when the track data have been stored.

2 Turn the JOG dial to monitor the track data stored in the memory.
If the cue point is far from the beginning of the current track, press the PLAY key first to activate monitor playback, then press the JOG key when you come to the cue point part.

3 Press the STANDBY key.
The player stores track data starting from the specified cue point. The STANDBY key flashes for about five seconds, then lights when the track data have been stored.

4 Press the PLAY key to start playback from the specified cue point.
You can press the PLAY key to monitor the track data even while the STANDBY key is flashing.

The counter display during memory jog

During memory jog, the counter displays the ACTUAL TIME (the track number, index number, and time code) or SET TIME (cue point data) of the audio signal being output.

4-2-4 Checking the Contents of a Track

To listen to the track contents at a given cue point, press the PLAY key at the cue point. Monitor play is activated.
After listening to the contents, press the STANDBY key. The player returns to the cue point and enters STANDBY mode.

To listen to the beginning of a track (top rehearsal function)

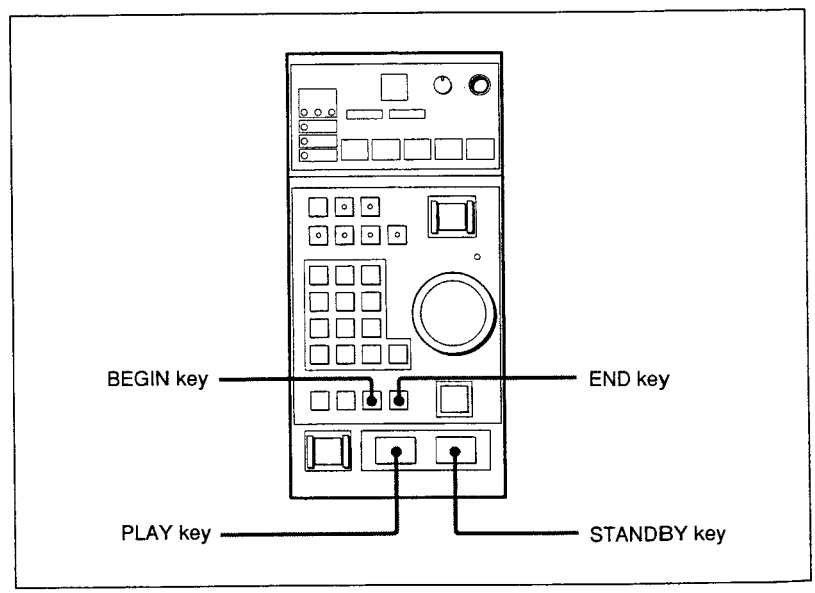
Press the BEGIN key in STANDBY mode.
As long as you hold down the BEGIN key, you can listen to the track contents from the beginning of the track. When you release the BEGIN key, the player returns to STANDBY mode.

To listen to the ending of a track (end rehearsal function)

Press the END key in STANDBY mode to listen to the final 15 seconds of a track. After 15 second of monitor play, the player returns to STANDBY mode.

To perform memory rehearsal (when the optional DABK-3101 is installed)

Perform the procedure in "4-2-3 Memory Jog and Memory Start Functions" on pages 4-9 and 10. After step 3, press the BEGIN key. (The player does not enter the play mode.)
The track data stored in the memory are output. If upon listening you wish to change the cue point, repeat the procedure from step 1 on page 4-9.



Checking the contents of a track

4-2-5 Storing a Cue Point

You can store up to nine cue points which are maintained until the power is turned off or the disc compartment opened.

To store a cue point

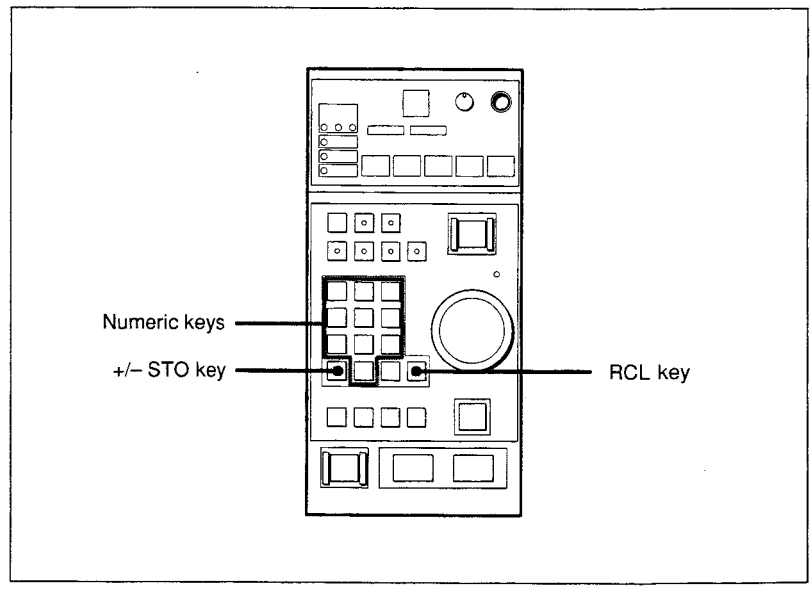
Specify the cue point in JOG mode, then store it to one of the numeric keys (1 to 9) by holding down the +/– STO key, then pressing the numeric key.

To recall a stored cue point

In JOG mode, hold down the RCL key and press the numeric key (1 to 9) of the cue point to be recalled.

To return to the previously recalled cue point

The previously recalled cue point is automatically stored to numeric key 0. Hold down the RCL key, then press the 0 key to recall the stored cue point.



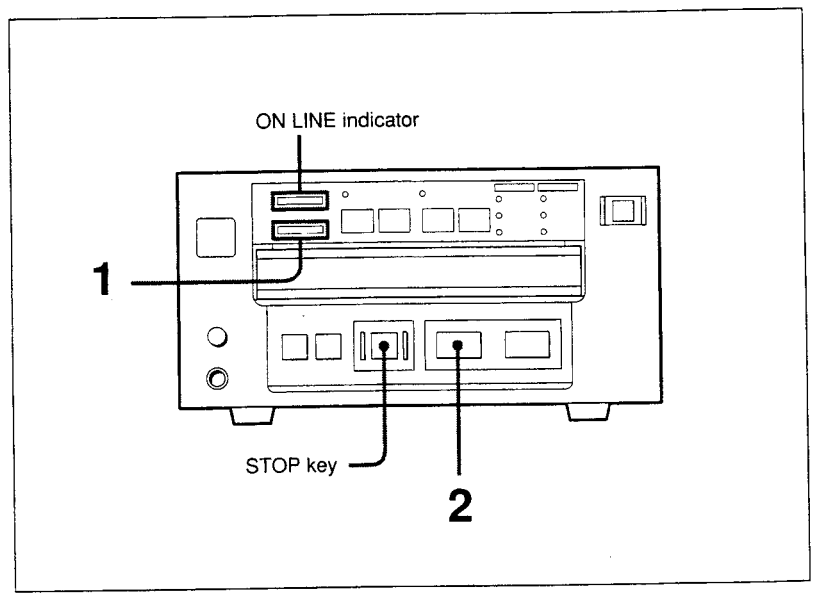
Storing a cue point

4-3 Playback Procedures

4-3-1 Normal Playback

There are two kinds of normal playback: monitor play for checking the contents of a cue point, and on-line play for on-the-air playback. On-line play can be performed either from the front panel of the player, or through the control unit.
After you have located the cue point, use the procedures in this section to perform the basic playback procedures using the front panel of the player and the control unit.

On-line Playback Through the Front Panel of the Player



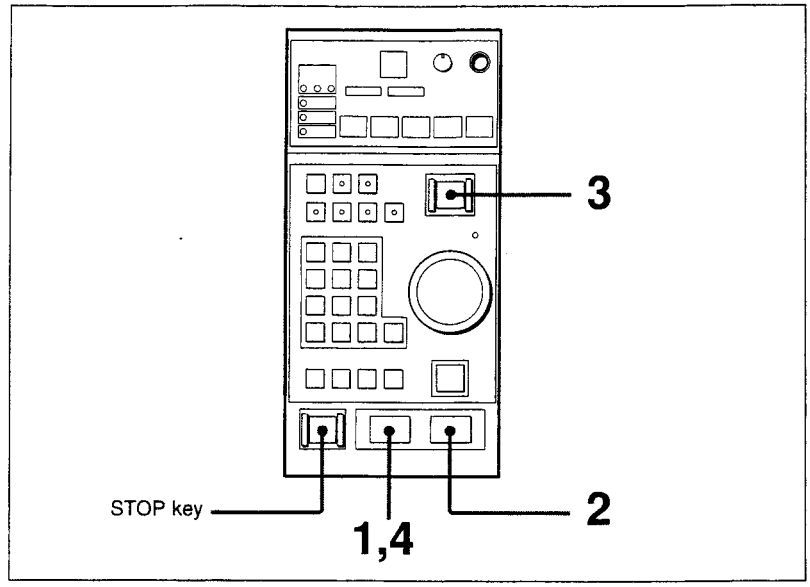
Online playback through the front panel of the player

1 Verify that the STANDBY indicator is lit.
If it is not lit, set the DIP switch 1 on the rear panel of the player to ON.

2 Press the PLAY key.
The ON LINE indicator lights up and on-line play starts.

To stop playback
Press the STOP key.

Normal Playback Through the Control Unit



Normal playback through the control unit

1 After locating the cue point, press the PLAY key while in STANDBY mode.
Monitor play starts.

2 After checking the contents of the cue point, press the STANDBY key.

3 Press the LINE OUT switch so that it lights up.
The STANDBY indicator also lights up.

4 Press the PLAY key.
The ON LINE indicator lights up and on-line play starts.

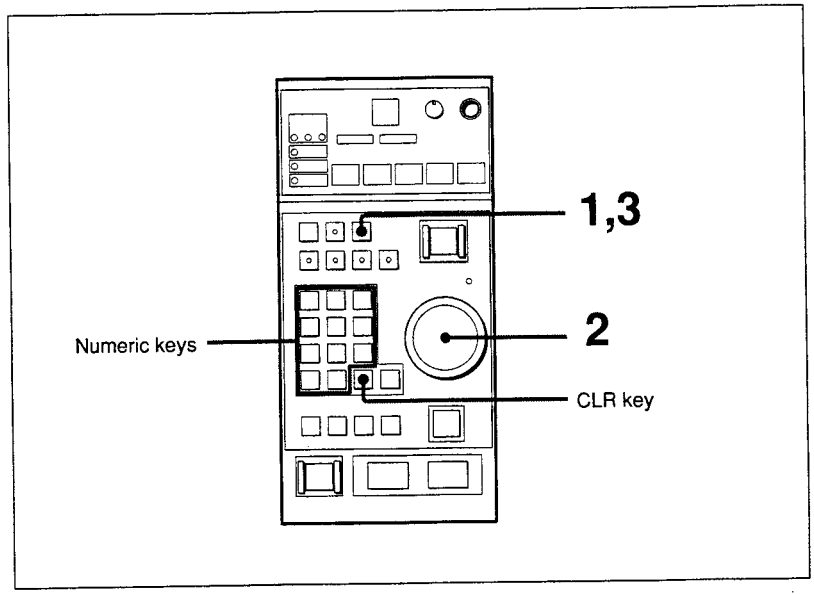
To stop playback

Press the STOP key.

4-3-2 Variable-Speed Playback

Using the VARI SET key and the JOG dial or the numeric keys, you can vary the playback speed up to ± 12.5% the normal playback speed.

Setting the Playback Speed



Setting the playback speed

1 Press the VARI SET key.
"MIN/SEC/FRAME" on the counter changes to a percentage display.

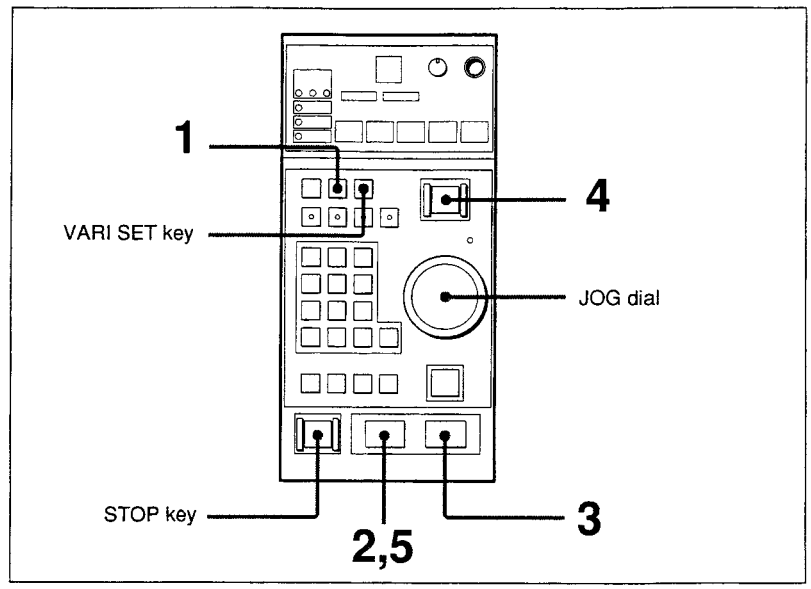
2 Set the playback speed with the JOG dial.
Turn clockwise for change in the plus direction. Turn counterclockwise for change in the minus direction. The speed can be set to ± 12.5% in ± 0.1% steps. Press the CLR key to return to normal playback speed (0%).

To set the playback speed with the numeric keys

Enter + or – with the +/– STO key, then the desired value.
For example, to set +1.0%, press the +/– STO key to display the + sign, then enter 0, 1, 0.

3 After entering the value, press the VARI SET key.

Playing Back at Variable Speed



Playing back at variable speed

1 After locating the cue point, press the VARI key while in STANDBY mode.

2 Press the PLAY key.
Monitor play is performed at the speed previously set with the VARI SET key and the JOG dial or the numeric keys.

3 After checking the contents of the cue point and playback speed, press the STANDBY key.

4 Press the LINE OUT switch so that it lights up.

5 Press the PLAY key.
On-line play starts from the specified cue point.

To stop playback

Press the STOP key.

To change the playback speed during playback

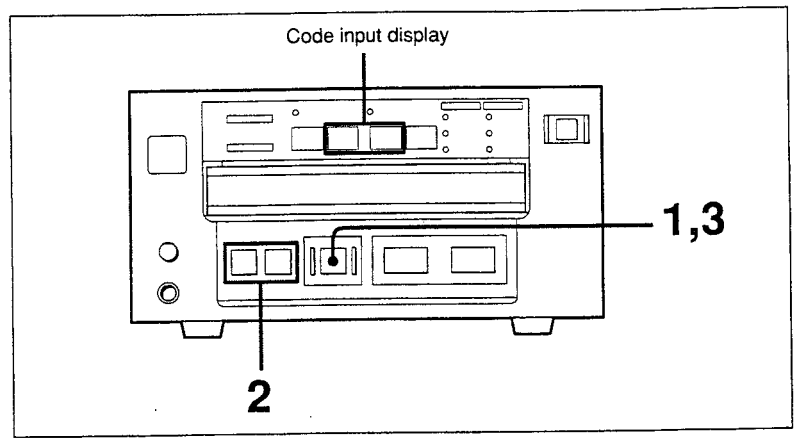
Press the VARI SET key, then change the speed by turning the JOG dial. (The numeric keys are disabled and cannot be used to change the playback speed. Only the CLR key functions.)

4-4 Setting the Channel Origin Code

A channel origin code can be set into the digital audio output signal (AES/EBU format) output from the DIGITAL OUT connector on the rear panel of the player to allow digital audio mixers or other equipment connected to the player to identify the signal source. This code can also be set for the digital output signal of the optional DABK-3102.

Note

Do not insert a disc into the disc compartment while setting the code.



Channel origin code setting

1 Make sure that the power is off, then turn on the power while holding down the STOP key.
The counter changes to the code input display.

2 Enter a two-digit code with the disc data input keys.
Use the PREVIOUS key to set the tens digit, and the NEXT key to set the ones digit. Each press of the key causes the digit to increase by one, from 0 to 9, then to 0 again.

3 After setting the code, press the STOP key.
The counter returns to normal display.

To check the code setting

Turn the power off, then on again. The code is displayed on the counter.

Note

You must re-enter the code after installing the optional DABK-3102 interface board.

Appendix

Specifications **A-2**

Specifications

CDP-3100 General

Power requirements	120 V AC, 60 Hz or 220 - 230 VAC, 50/60 Hz or 240 VAC, 50 Hz (See page 3-2.)
Power consumption	35 W (When no optional board is installed)
Operating temperature	5°C to 40°C (41°F to 104°F)
Dimensions (w/h/d)	About 212 × 118 × 408 mm ($8^3/_8 \times 4^3/_4 \times 16^1/_8$ inches)
Weight	About 6.5 kg (14 lb 5 oz)

CDP-3100 Laser Diode Properties

Material	GaAlAs
Wave length	780 nm
Emission duration	Continuous
Laser output power	10 µW (max)
Beam divergence	(H) 16° ±9°
	(V) 32.5° ±12.5°
Laserdiode data	
Materiale	GaAlAs
Bølgelængde	780 nm
Strålingsvarighed	Kontinuerlig
Lasereffekt	10 µW (max.)
Strålens divergens	(H) 16° ±9°
	(V) 32.5° ±12.5°
Laserdiodens egenskaper	
Material	GaAlAs
Våglängd	780 nm
Strålningstid	utan avbrott
Laseruteffekt	10 µW (maxvärde)
Strålens divergens	(H) 16° ±9°
	(V) 32.5° ±12.5°
Laserdiodens egenskaper	
Materiale	GaAlAs
Bølgelengde	780 nm
Emisjonslengde	Kontinuerlig
Laser utgangseffekt	10 µW (maks.)
Stråledivergens	(H) 16° ±9°
	(V) 32.5° ±12.5°

CDP-3100 Digital Audio Signal Format

Disc format	IEC
Disc diameter	8 cm (3 1/4 inches), 12 cm (4 3/4 inches)
Modulation format	EFM
Digital audio channel	2 ch
Sampling frequency	44.1 kHz
Error correction	CIRC
Rotation mode	CLV (about 200 to 500 r.p.m.)
Variable speed range	±12.5%
Access time	Within 2 seconds
Rise time	Within 0.3 seconds (without DABK-3101)

CDP-3100 Input/Output Connectors

Parallel remote connector	DIN 8-pin
Control interface connector	10-pin
Monitor output	Pinjack (×2) +5 dBs at maximum output level (load impedance: more than 47 kilo-ohms)
Headphone output	0 dBs at maximum output level (load impedance: 32 ohms)
Digital output	AES/EBU
Line output	XLR 3 pin (×2) Reference output level +4 dBs, balanced impedance: 600 ohms (at –15 dB) Maximum output level +19 dBs, balanced impedance: 600 ohms

CDP-3100 Audio Characteristics

Optimum load impedance	More than 600 ohms, balanced
Frequency response	20 Hz to 20 kHz +0.5 dB/ –1.0 dB (+19 dBs at maximum output level)
Distortion	Less than 0.01% (+19 dBs at maximum output level)
Residual noise	Less than –75 dBs
Crosstalk	More than 80 dB
Dynamic range	More than 92 dB

Supplied Accessories

CDP-3100:	AC power cord (1 set)
	Operation manual (1)
	Maintenance manual (part one) (1)
	Player number sheet (1)
CDS-3100:	Connecting cable (1)
	Player number sheet (1)
	Connecting board (1)
	Screws (+B 3 × 6) (4)

Optional CDS-3100 Control Unit General

Operating temperature	5°C to 40°C (41°F to 104°F)
Dimensions (w/h/d)	About 106 × 64 × 220 mm ($4^1/_4 \times 2^5/_8 \times 8^3/_4$ inches)
Weight	About 0.7 kg (1 lb 9 oz)
Search precision	1 frame (13.3 ms)
Headphone output	Maximum 0 dBs (load impedance 32 ohms)

Optional DABK-3101 Memory Board General

Dimensions (w/h/d)	About 130 × 14 × 99 mm ($5^1/_8 \times {}^9/_{16} \times 4$ inches)
Weight	About 75 g (3 oz)
Data storage capacity	5.7 ±0.1 sec. (at variable speed 0%)
Digital audio signal word length	16 bits

Design and specifications are subject to change without notice.

Index

A

AC IN connector 2-5
AMS (Automatic Music Sensor) 1-3
AMS key 2-8, 4-7
Audio detection level setting during AMS 4-4
Auto-remain function 4-4

B

BEGIN key 2-8, 4-11

C

Channel origin code 4-17
CLR key 2-7
Cue point
  Specifying numerically 4-6
  Storing 4-12

D

DABK-3101 1-4
DABK-3102 2-3, 2-8
DABK-3103 2-3, 2-8
DIGITAL OUT connector 2-5
DIP switches 2-5, 4-4

E

End alarm function 1-3
END key 2-8, 4-11
End rehearsal function 2-8, 4-11

F

Fader-delay function 4-4
FADER key 2-8
Forced online mode 4-4

I

INDEX key 2-8, 4-7
Index search function 1-4, 4-7

J

JOG key 2-7, 4-6, 4-8, 4-9
JOG mode 4-2
JOG (VARI SET) dial 2-7, 4-8, 4-9, 4-15

L

LINE OUT switch 2-7
LINE OUT connectors 2-5

M

Memory jog function 4-9
Memory rehearsal 4-11
Memory start function 4-9
MONITOR OUT connectors 2-5
Monitor play mode 4-3

N

NEXT key 2-8, 4-7

O

On-line play mode 4-3
OPEN/CLOSE key 2-3
Operating mode 1-3, 4-4
OUTPUT SYNC indicators 2-3

P

PHONES connector 2-3
PHONE LEVEL control 2-3
Player mode 4-2
PLAY key 2-3, 2-7
+/– (plus/minus) STO key 2-7, 4-12, 4-15
PREVIOUS key 2-8, 4-7

R

RCL key 2-8, 4-12
REMOTE-1 connector 2-5
REMOTE-3 connector 2-5

S

Search
  Basic procedure 4-6
  beginning of a track by rise in audio signal 4-7
  cue point with the JOG dial 4-8
  index point 4-7
  section within a track 4-7
Single playback 2-8
SINGLE PLAY key 2-8
SKIP indicator 2-7
STANDBY key 2-3, 2-7
STANDBY mode 4-2
STOP key 2-3, 2-7
STOP mode 4-3
SYSTEM CLK indicators 2-3
System clock display section 2-3

T

TIMER MODE key 2-8
Top rehearsal function 2-8, 4-11

V

Variable-speed playback 4-15
VARI key 2-8, 4-16
VARI SET key 2-8, 4-15, 4-16

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